



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,436	08/30/2006	Young-Joo Oh	B1180/20057	5030
3060 7590 12/17/2009		EXAMINER		
CAESAR, RIVISE, BERNSTEIN, COHEN & POKOTILOW, LTD. 11TH FLOOR, SEVEN PENN CENTER 1635 MARKET STREET PHILADELPHIA, PA 19103-2212				LOFTREDO, JUSTIN E
ART UNIT		PAPER NUMBER		
		3744		
NOTIFICATION DATE	DELIVERY MODE			
12/17/2009	ELECTRONIC			

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@crbcp.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/598,436	<b>Applicant(s)</b> OH ET AL.
	<b>Examiner</b> JUSTIN LOFFREDO	<b>Art Unit</b> 3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

1) Responsive to communication(s) filed on 13 August 2009.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

4) Claim(s) 21,24-30,33,35-38 and 40 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 21,24-30,33,35-38 and 40 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 30 August 2006 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_

5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

### **DETAILED ACTION**

1. The amendment filed Aug. 13, 2009 has been entered. Claims 21, 24-30, 33, 35-38 and 40 remain pending in the application. Claims 1-20, 22, 23, 31, 32, 34, 39 and 41 are cancelled.

#### *Claim Objections*

2. **Claim 33** is objected to because of the following informalities:

Consider claim 33, which is dependent on claim 31, a cancelled claim. Therefore, it is unclear as to whether applicant intended to cancel claim 33 as well as claim 31, or if claim 33 is supposed to be dependent on another pending claim. For the purposes of examination claim 33 is presumed to depend from claim 21, and therefore examiner considered claim 33 in this written office action.

Appropriate correction is required.

#### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claims 21, 24-30, 33, 35-38 and 40** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Consider claim 21: the amended claim includes the phrase "a removable plastic bell" (line 6 of the claim). While the specification describes a removable transparent protective bell

(see e.g. Specification, p. 1, 5), there does not appear to be any support in the specification for the removable bell being plastic. Because of the lack of support in the specification, for examination purposes, the examiner has considered the limitation meant that the protective bell is transparent, but not necessarily plastic.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. **Claims 21 and 33** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rode (US Patent No. 6,044,648) in view of Roslonski (US Patent No. 3,595,030) and Walker et al. (Walker) (US Patent No. 5,976,871).

Consider claim 21. Rode discloses cooling equipment (40) for cooling a cooled material, said cooling equipment comprising: a cooling space (50) capable of receiving the cooled material; inner walls (52) and (54) limiting the cooling space (50); an outer wall (see Figure 3 below); plenums (56), (58) and (60), which make up the claimed intermediate space between the outer wall and the inner walls (52) and (54); and a perforated tube (66) (corresponding to the claimed cooling agent supply line) communicating with and emptying into the intermediate space for introducing a cooling agent, whereby most of the liquid cooling agent (i.e. not all of the liquid cooling agent is necessarily vaporized, and thus, some of the liquid cooling agent is introduced in the intermediate space (see col. 1, L 59-col.2, L 7)), wherein the cooling agent supply line (66) empties into the intermediate space between the inner walls (52) and (54) and the outer wall, and continuously transfer the cooling agent into the cooling space (col. 3, L 10-48; Fig. 3).

Rode fails to disclose the following: a removable protective bell on the cooling space and a cold gas outlet located on a lower side of the bell communicating with the cooling space; a porous buffer material arranged in the intermediate space; the cooling agent supply line introducing the cooling agent into the porous buffer material; the cooling agent being transferred through the inner wall with the inner wall being permeable; and the ability of the cooling equipment to function without a cooling agent lake forming on a bottom of the cooling space.

Roslonski teaches to following: enclosures (20), (30) and removable cover (24) (corresponding to the claimed removable protective bell on cooling space (22), and conduits (48) (corresponding to the claimed cold gas outlet) located on a lower side of the bell communicating with the cooling space (22) (col. 2, L 47, 53; col. 3, L 13-15; Fig. 2); a porous buffer material (34) arranged in an outer compartment (32) (corresponding to the claimed intermediate space), and an inner wall (20) having holes (36) (corresponding to the claim that the inner wall is permeable) (col. 2, L 24-71; Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the cooling equipment disclosed by Rode to incorporate a removable protective bell on the cooling space having cold gas outlets on a lower side of the bell communicating with the cooling space as taught by Roslonski in order to protect temperature sensitive items to be cooled within the cooling space, and to allow for the gas that has already exchanged heat with the items to be released so that fresh cooling gas can be introduced into the cooling space, thereby promoting a more efficient cooling operation rather than ineffectively recirculating warmer gas.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the cooling equipment disclosed by Rode to also incorporate the porous buffer material arranged in the intermediate space and the inner wall being permeable as taught by Roslonski so that the cooling agent supply line introduces the cooling agent into the porous buffer material to then transfer the cooling agent through the inner wall, in order to effectively insulate and maintain a reduced temperature in the cooling space while distributing the cooling agent to pass through the permeable inner wall into the cooling space. Furthermore, the presence of the porous buffer material would capture liquid refrigerant flowing through the intermediate

space not vaporized in the cooling agent supply line, thereby preventing the formation of a cooling agent lake at the bottom of the cooling space. Additionally, while it does appear that a cooling agent lake could form within plenum (60) around the coil (68), claim 21 recites that “no cooling agent lake forms *on a bottom of the cooling space*” (lines 13-14). The opening provided at the bottom of the cooling space (50) of the apparatus disclosed by Rode would prevent the formation of a cooling agent lake at the bottom of the cooling space as recited in the claim (see Rode, annotated Fig. 3).

Roslonski as modified fails to disclose the removable protective bell being at least partially transparent. Walker teaches a protective enclosure (23) (corresponding to the claimed protective bell), that has a transparent door (33). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the cooling device disclosed by Rode as modified to include the transparent protective bell portion as taught by Walker in order to allow the items within the cooling space to more accurately be arranged or prepared in situ while allowing a user to monitor the items through the transparent portion of the bell.

Consider claim 33. Rode as modified discloses the invention as claimed, but fails to disclose that the protective bell has a sample lock. Walker discloses that there is a drying cavity (31) in the enclosure (corresponding to the claimed sample lock) separated from the outside environment (col. 5, L 15-17, 25 & 27; Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the protective bell disclosed by Rode as modified to incorporate a sample lock as taught by Walker in order to allow the items being cooled to be arranged or prepared in situ without contact with the outside environment, which

could be especially helpful when preparing more sensitive items such as biological samples as disclosed at least by Walker.

Consider claim 35. Rode as modified discloses the invention as claimed, and Rode specifically discloses a pressure relief valve (80) and aperture (82) (corresponding to the claimed cold gas outlet) via which cooling agent and cold gas can escape from the cooling space (50) being arranged on an upper side of the cooling space (50) (Col. 3, L 5-7 & 36-40; Figure 3).

Consider claim 40. Rode as modified discloses the invention as claimed, and Rode specifically discloses a cooling agent such as liquid nitrogen (Col. 3, L 2-3).

5. **Claims 24, 29 and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rode (US Patent No. 6,044,648) Roslonski (US Patent No. 3,595,030) and Walker et al. (Walker) (US Patent No. 5,976,871) as applied to claim 21, and further in view of Binder (US Patent No. 5,601,143).

Consider claim 24. Rode as modified discloses the invention as claimed but fails to disclose the inner wall being substantially grid shaped. Binder teaches inner walls (18) of a limiting a space (10), the inner walls (18) having a plurality of apertures (38) (corresponding to the inner wall being substantially grid shaped). The apertures are clearly positioned on a network of substantially uniformly spaced horizontal and perpendicular lines (see Figure 4), which renders the wall substantially grid shaped (col. 3, L55-60; Figure 4). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the inner wall of the cooling device disclosed by Rode as modified to be substantially grid shaped as taught by Binder in order to produce a connection between the cooling space and the inner wall that allows refrigerant to flow into the cooling space in a uniform manner.

Consider claims 29 and 30. Rode as modified discloses the invention as claimed but fails to disclose a heating element being arranged in the cooling space; or that the heating element is arranged under a heating plate, the heating plate having several perforations that make a circulation of gas possible. Binder teaches a heating element (44) being arranged in a cooling space; the heating element (44) being arranged under the base (12) and behind side walls (18), which make up a heating plate, the heating plate having several apertures (38) (i.e. perforations) that make a circulation of gas possible (col. 3, L 30-60; col. 4, L 11-14, 49-56; Fig. 4). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the cooling device disclosed by Rode as modified to include the heat element arrangement taught by Binder in order to control the temperature of the circulating air in the cooling space.

6. **Claims 25 and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rode (US Patent No. 6,044,648), Roslonski (US Patent No. 3,595,030) and Walker et al. (Walker) (US Patent No. 5,976,871) as applied to claim 21, and further in view of Barthel (US Patent No. 4,481,779).

Consider claims 25 and 26. Rode as modified discloses the invention as claimed but fails to disclose the inner wall being made of a thermally conductive material, which further consists essentially of metal. Barthel teaches that the inner wall (28) of a cooling container can be made of any material composition, e.g. metal or plastic (col. 5, L 26-27), metal being a thermally conductive material. It would have been obvious to one or ordinary skill in the art at the time of the invention to modify the cooling device disclosed by Rode as modified to include a thermally conductive inner wall taught by Barthel in order to provide a thermally conductive material

effective for cooling, whereby metal is a material that will retain its form after being repeatedly subjected to cold shocks at liquid nitrogen temperatures.

7. **Claims 27 and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rode (US Patent No. 6,044,648), Roslonski (US Patent No. 3,595,030) and Walker et al. (Walker) (US Patent No. 5,976,871) as applied to claim 21, and further in view of Palma (US Patent No. 3,618,336).

Consider claims 27 and 28. Rode as modified discloses the claimed invention, but fails to disclose the cooling space being vat shaped where the cooling agent supply line has a cooling agent distributor along the upper circumferential edge to introduce a cooling agent into the intermediate space in a distributed manner over the length of the cooling agent distributor.

Palma teaches a cooled coffin structure where the wall of the coffin is hollow and passages are provided which are cooling agent distributors communicating with the interior of the hollow wall and the interior of the coffin, which is the cooling space, and means such as a blower or fan are provided outside of the coffin to continuously circulate air which is a cooling agent through the hollow walls so that a stream of cooling agent flows into the intermediate space and then into the cooling (col. 1, L 46-55; col. 2, L 13-15). A channel (20) that is a cooling agent supply line extends circumferentially along the internal sides of the wall portion (14) (col. 1, L 46-55; Col. 2, L 13-15). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the cooling device disclosed by Rode as modified to incorporate the cooling distribution arrangement taught by Palma in order to uniformly distribute the cooling agent throughout the entire cooling space.

8. **Claim 36 and 38** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rode (US Patent No. 6,044,648), Roslonski (US Patent No. 3,595,030) and Walker et al. (Walker) (US Patent No. 5,976,871) as applied to claim 21, and further in view of Weng (US Patent No. 6,845,628).

Consider claim 36. Rode as modified discloses the claimed invention, but fails to disclose a temperature sensor in the cooling space capable of measuring a temperature in the cooling space; a controllable cooling agent valve capable of adjusting an amount of cooling agent supplied; or a temperature control device capable of regulating the temperature in the cooling space, the temperature control device being connected on an input to the temperature sensor and on an output side to the cooling agent valve.

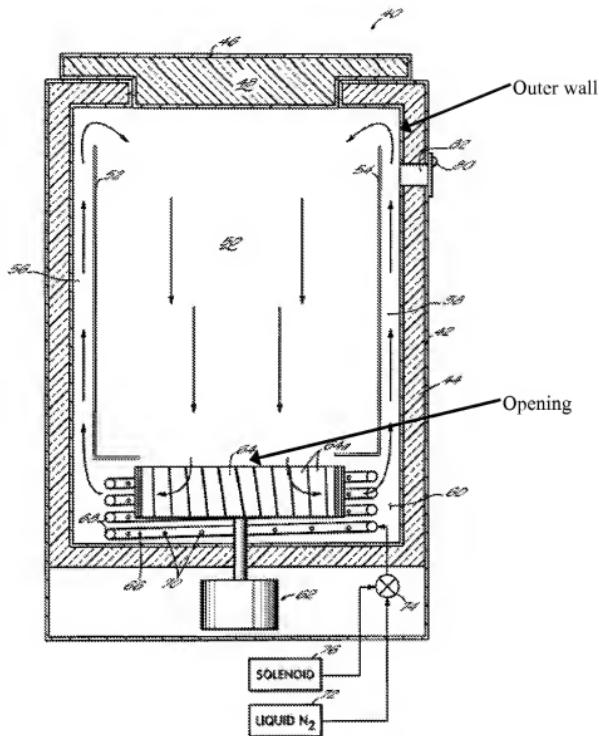
Weng teaches a temperature control device with a temperature sensor that senses temperature at a specified location within a refrigeration apparatus. The temperature control device has a first flow valve (corresponding to the claimed cooling agent valve) that can selectively increase or decrease the flow of refrigerant in response to temperature sensed by the sensor. The temperature sensor also contains a controller (corresponding to the claimed temperature control device) that is capable of controlling the valve in response to temperature sensed (col. 2, L 2-14). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the cooling device with a cooling space disclosed by Rode as modified to incorporate the temperature controlling arrangement and temperature sensor as taught by Weng in order to monitor and provide reliable control for the temperature within the cooling space of the device by providing the sensor within the cooling space so that the temperature is appropriate for cooling products.

Consider claim 38. Rode as modified discloses the invention as claimed, and Weng specifically discloses that the temperature sensor senses temperature at a specified location within the refrigeration apparatus (i.e. in the cooling space as discussed in the rejection of claim 36) capable of measuring a temperature of a cryosample in the cooling space (col. 2, L 2-14).

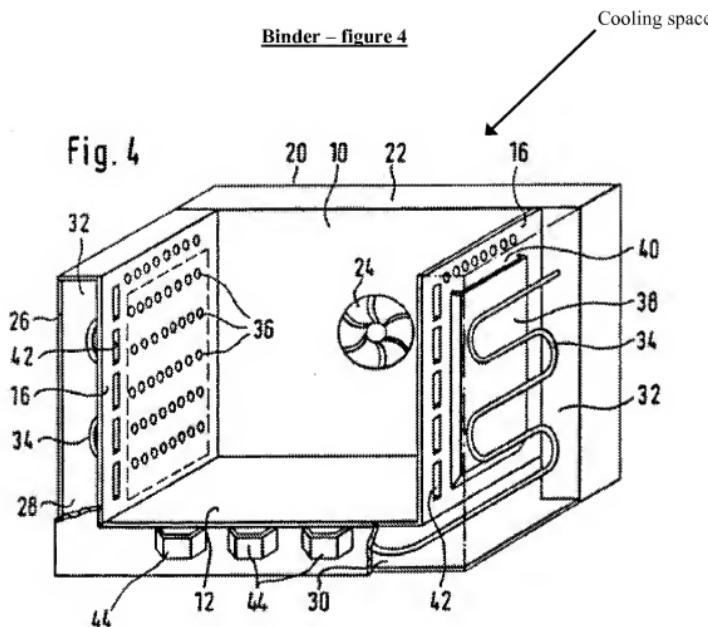
9. **Claim 37** is rejected under 35 U.S.C. 103(a) as being unpatentable over Rode (US Patent No. 6,044,648), Roslonski (US Patent No. 3,595,030), Walker et al. (Walker) (US Patent No. 5,976,871) and Weng (US Patent No. 6,845,628) as applied to claim 36, and further in view of Ali (US Patent No. 5,546,756).

Consider claim 37. Rode as modified discloses the claimed invention, but fails to disclose the temperature control device connected via a pulse generator to the cooling agent valve, where the pulse generator is capable of alternatively opens and closes the cooling agent valve. Ali discloses a controller (1) (corresponding to the claimed temperature control device) including, i.e. connected via, a pulse generator to valve (6) (corresponding to the claimed cooling agent valve), where the pulse generator is capable of alternatively opening and closing the cooling agent valve (6) via a pulse width control signal (col. 2, L 61-61; col. 3, L 4-10, 37-40; Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the cooling device disclosed by Rode as modified to include the controller and valve arrangement taught by Ali in order to control cooling within the cooling space by controlling the amount of cooling agent that flows through the valve and into the cooling space.

Rode - Figure 3



**FIG. 3**



***Response to Arguments***

10. Applicant's arguments filed Aug. 13, 2009 have been fully considered but they are not persuasive for the following reasons:
11. In response to applicant's argument (Remarks at 6) that Rode does not teach the following: a cooling agent supply line communicating with and emptying into the intermediate space; or that the cooling agent is in liquid form; examiner respectfully disagrees. Refer to the rejection of claim 21, in which examiner identified that Rode does in fact disclose these limitations, which is further illustrated by Fig. 3 of Rode's disclosure.
12. In response to applicant's argument (Remarks at 6) that Rode does not teach that the cooling agent passes through a porous buffer material *prior to passing through the inner wall and into the cooling space*; examiner respectfully disagrees with applicant's reasoning here as examiner never indicated that Rode did in fact disclose this limitation. Referring to the rejection of claim 21, examiner indicated that Rode as modified by Roslonski discloses this limitation. Rode discloses the cooling equipment having at least an inner wall and a cooling space, and Roslonski disclosed a buffer material (34) arranged in an outer compartment around a cooling space (see the rejection of claim 21). Therefore, when the apparatus of Rode is modified to include the buffer material of Roslonski in the intermediate space, the cooling agent does in fact pass through the buffer material prior to passing through the inner wall and into the cooling space (see Rode, Fig. 3). This is considered an attack on the Rode reference individually, and it has been held that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

13. In response to applicant's arguments (Remarks at 6) that Roslonski does not cure the defects in the Rode teaching regarding limitations directed at the cooling agent supply line emptying into the buffer material in the intermediate space, examiner respectfully disagrees. Rode discloses plenums (56), (58) and (60), which make up the claimed intermediate space between the outer wall and the inner walls (52) and (54); and a cooling agent supply line (66) communicating with and emptying into the intermediate space for introducing a cooling agent. Roslonski disclosed a buffer material (34) arranged in an outer compartment around a cooling space (see the rejection of claim 21). Therefore, when the apparatus of Rode is modified to include the buffer material of Roslonski in the intermediate space, the cooling agent supply line does in fact communicate with and empty into the buffer material in the intermediate space.

14. In response to applicant's argument (Remarks at 7) that the protective enclosure disclosed by Walker, which examiner identified as corresponding to the protective bell as claimed here, is not removable, examiner respectfully disagrees. First, due to applicant's amendment, examiner identified in the rejection of claim 21 that Roslonski discloses a protective bell made up of enclosures (20), (30) and removable cover (24). Additionally, examiner identified that Walker discloses a protective bell (23) in the rejection of claim 21 of this written office action. Because presenting a claimed limitation that a component is "removable" is very broad (i.e. there is no indication as to how the bell is removable or whether it must be replaced after being removed), the examiner determined that absent any teaching by the prior art to the contrary, the protective bell disclosed by Walker is capable of being removed by some manner (e.g. the bell could be cut away from the structure). Furthermore, when sufficient force is applied to any given object or

part of an apparatus, for example, that object or part is removable. Therefore, applicant's argument regarding the removability of the protective bell is unpersuasive.

15. In response to applicant's argument (Remarks at 7) that none of the cited references disclose a cold gas outlet at the lower end of the protective bell, examiner respectfully disagrees because, per the rejection of claim 21 in this written office action, Roslonski discloses conduits, which correspond to the claimed cold gas outlet, and which are located on a lower side of a protective bell and communicating with the cooling space.

16. In response to applicant's argument (Remarks at 7-8) that the conduits disclosed by Roslonski, which examiner has indicated correspond to the claimed cold gas outlet, have a completely different technical function compared with the cold gas outlet of the present invention, examiner finds this argument unpersuasive. First, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use it meets the claim. Here, applicant claimed the following: "a cold gas outlet...for permitting cooling agent and cold gas to exit the cooling space." (claim 21, lines 8-9 of the claim). The cold gas outlet identified in Roslonski is capable of performing the intended use recited here, which is to permit the cooling agent and cold gas to exit the cooling space. Furthermore, the features upon which applicant relies (i.e., that the present invention has the technical function of generating a large temperature gradient at the level of the cold gas outlet thereby counteracting a misting over, or fogging, of the inner walls of the protective bell) are not recited in the rejected claim(s). Although the claims are interpreted in

light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

17. In response to applicant's arguments (Remarks at 8) that none of the prior art of record discloses the following claimed limitations: (1) the inner wall being substantially grid shaped per claim 24; (2) the cooling supply line having a cooling agent distributor along the circumferential edge of the cooling space per claim 28; and (3) the temperature sensor per claim 38; examiner respectfully disagrees. Refer to the rejections of claims 24, 28 and 38 in this office action, respectively, in which examiner has set forth where the prior art references (i.e. Binder, Palma and Weng, respectively) teach each of these limitations such that when combined with Rode as modified, claims 24, 28 and 38 are unpatentable over the prior art presented here.

18. In response to applicant's argument (Remarks at 8) that claim 38 is directed to cooling equipment for a cryosample, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. Because the prior art structure discloses by Rode as modified is capable of performing the intended use (i.e. to cool a cryosample) it meets the claim.

In response to applicant's argument that there is no proper basis for combining the teachings in Rode, which relates to a cooling device for cooling biological samples, and the teachings of Roslonski, which relates to a device for chilling wine and wine glasses, examiner respectfully disagrees. Under this analysis, incorporating the porous buffer material in the intermediate space as taught by Roslonski solves the problem identified by the applicant (see e.g. applicant's disclosure, p. 1, 2, 3) of improper temperature distribution to the cooled item and

warming of the cooled item. Because Roslonski discloses that the cooling item surrounded by the porous buffer material is more uniformly cooled and the buffer insulates to maintain the cooled item at a reduced temperature (i.e. preventing warming of the cooled item), this provides a reason for combining the elements in the manner claimed, and the fact that Roslonski is used for cooling wine and wine glasses as opposed to biological samples does not preclude such a combination.

***Conclusion***

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN LOFFREDO whose telephone number is (571) 270-7114. The examiner can normally be reached on M - F 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler and Frantz Jules can be reached on (571) 272-4834 and (571) 272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cheryl J. Tyler/  
Supervisory Patent Examiner, Art Unit 3744

/JL/  
Dec. 3, 2009